

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/541,750A
Source: IFWP
Date Processed by STIC: 06/22/2006

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 06/22/2006

PATENT APPLICATION: US/10/541,750A

TIME: 12:55:13

Input Set : E:\Substitute sequence list-13311-00009-US.txt

Output Set: N:\CRF4\06222006\J541750A.raw

3 <110> APPLICANT: Matuschek, Markus
 4 Klein, Daniela
 5 Heinekamp, Thorsten
 6 Schmidt, Andre
 7 Brakhage, Axel
 8 Achatz, Brigitte

10 <120> TITLE OF INVENTION: Method for producing carotenoids or their precursors using
 11 genetically modified organisms of the Blakeslea genus,
 12 carotenoids or their precursors produced by said method and use
 13 thereof

15 <130> FILE REFERENCE: 13311-00009-US
 17 <140> CURRENT APPLICATION NUMBER: US/10/541,750A
 18 <141> CURRENT FILING DATE: 2005-07-08
 20 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/000099
 21 <151> PRIOR FILING DATE: 2004-01-09
 23 <150> PRIOR APPLICATION NUMBER: DE 103 00 649.4
 24 <151> PRIOR FILING DATE: 2003-01-09
 26 <150> PRIOR APPLICATION NUMBER: DE 103 41 271.9
 27 <151> PRIOR FILING DATE: 2003-09-08
 29 <160> NUMBER OF SEQ ID NOS: 80
 32 <170> SOFTWARE: PatentIn version 3.2
 34 <210> SEQ ID NO: 1
 35 <211> LENGTH: 2160
 36 <212> TYPE: DNA
 37 <213> ORGANISM: Artificial Sequence
 39 <220> FEATURE:
 40 <223> OTHER INFORMATION: Promoter
 42 <400> SEQUENCE: 1

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47	ttcatgggcg	ttggcatgat	ggccgcatg	catctgtact	tcaagtacac	caacgctctt	180
49	ctgatccagt	cgatcatccg	ctgaaggcgc	tttcgaatct	ggttaagatc	cacgtcttcg	240
51	ggaagccagc	gactggtgac	ctccagcgtc	cctttaaggc	tgccaacagc	tttctcagcc	300
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55	gtgtcaagga	ggagtaagct	ccttattgaa	gtcggaggac	ggagcgggtg	caagaggata	420
57	ttcttcgact	ctgtattata	gataagatga	tgaggaattg	gaggtagcat	agcttcattt	480
59	ggatttgctt	tccaggctga	gactctagct	tggagcatag	agggtccttt	ggctttcaat	540
61	attctcaagt	atctcgagtt	tgaacttatt	ccctgtgaac	cttttattca	ccaatgagca	600
63	ttggaatgaa	catgaatctg	aggactgcaa	tcgccatgag	gttttcgaaa	tacatccgga	660
65	tgtcgaaggc	ttggggcacc	tgcgttggtt	gaatttagaa	cgtggcacta	ttgatcatcc	720
67	gatagctctg	caaagggcgt	tgcacaatgc	aagtcaaacg	ttgctagcag	ttccaggtgg	780
69	aatgttatga	tgagcattgt	attaaatcag	gagatatagc	atgatctcta	gttagctcac	840
71	cacaaaagtc	agacggcgta	acaaaaagtc	acacaacaca	agctgtaagg	atttcggcac	900

Cpg-6)

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77 aggaagtgga ctcaaatcga cttcagcaac atctcctgga taaactttaa gcctaaacta      1080
79 tacagaataa gataggtgga gagcttatac cgagctccca aatctgtcca gatcatgggt      1140
81 gaccggtgcc tggatcttcc tatagaatca tccttattcg ttgacctagc tgattctgga      1200
83 gtgaccaga ggggtcatgac ttgagcctaa aatccgcccgc ctccaccatt tgtagaaaaa      1260
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89 tgaggtgcag tggatgatta ttaatccggg accggccgcc cctccgcccc gaagtggaaa      1440
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93 tcgaatcacc ggcagtaagc gaaggagaat gtgaagccag ggggtgatag ccgtcggcga      1560
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103 cagtcgaccc atccggtgct ctgcactcga cctgctgagg tccctcagtc cctggtaggc      1860
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107 ccaacatttg ttgccatatt ttctgtctct cccaccagc tgcctttttc ttttctcttt      1980
109 cttttcccat cttcagtata ttcatcttcc catccaagaa cctttatttc ccctaagtaa      2040
111 gtactttgct acatccatac tccatccttc ccacccctta ttcttttgaa cttttcagtt      2100
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128 <223> OTHER INFORMATION: n is a, c, g, or t

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145 ttcatattgtc caagcagcaa agagtgcctt ctagtgattt aatagctcca tgtcaacaag      180
147 aataaaaacgc gttttcgggt ttacctcttc cagatacagc tcactctgcaa tgcattaatg      240
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151 agctattttc attttcggga gacgagatca agcagatcaa cggtcgtcaa gagacctacg      360
153 agactgagga atccgctctt ggtccacgc gactatata ttgtctctaa ttgtactttg      420
155 acatgctcct cttctttact ctgatagctt gactatgaaa attccgtcac cagcncctgg      480
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163 ctcttatgag tcgtttaccc agaatgcaca ggtacacttg ttttagaggta atccttcttt      720
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197 cagttcatgg gcgttggcat gatggccgtc atgcatctgt acttcaagta caccaacgct      180
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 267,475,566
Seq#:3; N Pos. 3471,3679,3770
Seq#:4; N Pos. 227,318,526,8946,10028
Seq#:36; N Pos. 10264,10472,10563
Seq#:37; N Pos. 10264,10472,10563
Seq#:38; N Pos. 10264,10472,10563
Seq#:39; N Pos. 10264,10472,10563
Seq#:40; N Pos. 3471,3679,3770
Seq#:41; N Pos. 3471,3679,3770
Seq#:42; N Pos. 10264,10472,10563
Seq#:43; N Pos. 10264,10472,10563
Seq#:44; N Pos. 10264,10472,10563
Seq#:45; N Pos. 18970,19178,19269
Seq#:46; N Pos. 3471,3679,3770
Seq#:47; N Pos. 10264,10472,10563
Seq#:48; N Pos. 10264,10472,10563
Seq#:49; N Pos. 3471,3679,3770
Seq#:50; N Pos. 10264,10472,10563
Seq#:51; N Pos. 10264,10472,10563
Seq#:52; N Pos. 3,9
Seq#:53; N Pos. 3,6
Seq#:62; N Pos. 3471,3679,3770
Seq#:75; N Pos. 2694,4263

VERIFICATION SUMMARY

DATE: 06/22/2006

PATENT APPLICATION: US/10/541,750A

TIME: 12:55:14

Input Set : E:\Substitute sequence list-13311-00009-US.txt

Output Set: N:\CRF4\06222006\J541750A.raw

L:149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:240
M:341 Repeated in SeqNo=2
L:307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3420
M:341 Repeated in SeqNo=3
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:180
M:341 Repeated in SeqNo=4
L:3771 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:10260
M:341 Repeated in SeqNo=36
L:4342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:10260
M:341 Repeated in SeqNo=37
L:4968 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:10260
M:341 Repeated in SeqNo=38
L:5570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:10260
M:341 Repeated in SeqNo=39
L:5944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:3420
M:341 Repeated in SeqNo=40
L:6586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:3420
M:341 Repeated in SeqNo=41
L:7456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:10260
M:341 Repeated in SeqNo=42
L:8070 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:10260
M:341 Repeated in SeqNo=43
L:8662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:10260
M:341 Repeated in SeqNo=44
L:9544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:18960
M:341 Repeated in SeqNo=45
L:9702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:3420
M:341 Repeated in SeqNo=46
L:10666 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:10260
M:341 Repeated in SeqNo=47
L:11284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:10260
M:341 Repeated in SeqNo=48
L:11654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:3420
M:341 Repeated in SeqNo=49
L:12524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:10260
M:341 Repeated in SeqNo=50
L:13172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:10260
M:341 Repeated in SeqNo=51
L:13463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:13486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:13724 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:3420
M:341 Repeated in SeqNo=62
L:14610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:2640
M:341 Repeated in SeqNo=75